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- DEVELOPMENT**, *Cyprinodon radiosus* (egg size unrel. to fry size) 100–107; *Amphiprion perideraion* (feeding efficiency improv. from hatching) 242–246; *Rana* (*lessonae*, *esculenta*) (mat. & pat. contrib. to hatch. dev. & size) 406–412; *Paralichthys dentatus* (of burying beh. in metamorphs. & juvs.) 458–465; *Chrysemys picta* (gait & speed on land, juv. vs. adult) 466–471; *Stenodus leucichthys nelma* (descript. from egg to juv. stage) 472–484; *Eumeces fasciatus* (of embryos after oviposition) 493–498; *Gasterosteus wheatlandi* (low lateral plate counts due to neoteny) 508–511; *Labroides* (phthirophagus, dimidiatus) (shift btwn. juv. & adult coloration) 520–524; *Rhyacosiiredon* = *Ambystoma* (*altamirani*, *rivularis*, *leorae*), *Ambystoma* (*dumerilii*, *mexicanum*, *tigrinum*, *ordinarium*) (unique type paedomorph., rel. to ecol.) 656–662; *Colostethus stepheni* (unique devel. mode) 747–750; squamate reptiles (standardized criteria for embryon. nutrit. determ.) 925–935; *Hyperolius* (*viridiflavus* *omatostictus*, *v. nitidulus*, *marmoratus* *taeniatus*) (larv. adapt. to crowding aff. metamorphs.) 996–1007; *Natrix tessellata*, *Crotalus atrox* (of antihemorrhage activ. of *Natrix* to *Crotalus* venom) 1050–1053.
- DIGESTION**, *Angolosaurus skoogi* (effic. & gut pass. time w/ diff. diets & temps.) 962–974.
- DISTRIBUTION**, *Cyprinella lutrensis*, *Meda fulgida* (introd. fish reduces distrib. of native) 9–19; *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata* (geogr. distr. of nesting colonies & body sizes) 66–81; *Notropis sultrius* n. sp. 82–90; *Naso* (*Axinurus*) (*thynnoides*, *minor*, *caeruleacauda* n. sp.) 116–124; *Lycodon* (*alcalai* n. sp., *bibonius* n. sp., *chrysoprateros* n. sp., *solivagus* n. sp.) 159–174; *Cyclothone kobayashii* n. sp. 191–204; *Champsodon* (10 spp., *sagittus* n. sp., *pantolepis* n. sp., *machaeatus* n. sp.) (of all 13 spp.) 347–371; *Bathycetopsis* n. gen. *oliveirai* n. sp. 381–390; *Thorius* (*aureus* n. sp., *arbores* n. sp., *boreas* n. sp., *smithi* n. sp., *insperatus* n. sp., *macdougalli*) (endemic, sympatry) 573–590; *Eleutherodactylus* (*euphronides* n. sp., *shrevei* n. sp.) 780–796; *Eleutherodactylus urichi* (revised dist.) 780–796; *Notropis albizonatus* n. sp. 868–886; *Cyprinella* (*alvarezdelvillari* n. sp. and other 6 spp. of *lepida* clade) 897–906; *Creagrutus hysginus* n. sp. 975–979; *Neobythites* (*unicolor* n. sp., *elongatus* n. sp.) 992–995.
- DUVERNOY'S GLAND**, *Natrix tessellata*, *Crotalus atrox* (venom resist. in embryo rel. to devel. of Duvernoy's gland) 1050–1053.
- ECOLOGY**, *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (*kempi*, *oliveacea*), *Natatar depressa* (reprod. diffs. btwn. spp. & popns., rel. to body size) 66–81; *Sceloporus undulatus* (popn. chars. var. by habitat, perch chars.) 136–152; *Dorosoma cepedianum*, *Pomoxis* spp., *Etheostoma* spp., *Percina* spp., *Lepomis* spp., *Gambusia affinis*, *Cyprinella* spp., *Notropis* spp. (larv. & juv. fish commun. dynamics in floodplain river) 174–183; *Cyclothone kobayashii* n. sp. (notes) 191–204; haplochromine cichlids (32 gen., 40 spp.) (very low genet. divers., wide ecol. divers.) 274–288; *Varanus rosenbergi* (temperate popn. energetics, rel. to tropical popns.) 289–295; *Gasterosteus aculeatus* (varies btwn. popns. w/ var. degree of pelvic reduction) 314–325; *Bathycetopsis* n. gen. *oliveirai* n. sp. (notes) 381–390; *Acanthemblemaria* (*greenfieldi*, *paula*, *maria*, *spinosa*, *aspera*), *Emblemaria* (*atlantica*, *pandionis*) (ecol. diffs. in fish assemblage struct.) 398–405; *Paralichthys dentatus* (burying beh. in metamorphs. & juvs.) 458–465; *Thamnophis* (*radix*, *sirtalis*, *bulleri*, *marcianus*, *melanogaster*) (min. temp. toler. rel. to latitude of sp. range) 537–540; *Anolis sagrei* (null growth-based models used to anal. ecol. factors in sex. size dimorph.) 598–613; *Crotalus cerastes* (ecol. signif. of mvmnt. pttns., seas. & age-sex class diffs.) 631–645; *Rhyacosiiredon* = *Ambystoma* (*altamirani*, *rivularis*, *leorae*), *Ambystoma* (*dumerilii*, *mexicanum*, *tigrinum*, *ordinarium*) (partial paedomorph., rel. to ecol.) 656–662; *Rana sylvatica*, *Bufo americanus* (impact of opportun. pred. by tdpis. on commun.

struct.) 691–697; *Dicamptodon tenebrosus* (possible commun. struct. eff. of select. pred. by salamander larv.) 705–718; *Eumeces okadae* (ecol. correl. of life hist. divers. in island popns.) 732–747; *Cnemidophorus murinus* (poor food qual. rel. to unusual repro.) 760–766; *Eleutherodactylus urichi*, *euphronides* n. sp., *shrevei* n. sp. (notes) 780–796; *Salvelinus namaycush* (genet. diverg. btwn. 3 apparent ecophenotypes) 843–850; Australian snakes (4 fams., 103 spp.) (body size major factor in interspp. ecol. diffs.) 851–867; *Notropis albinzonatus* n. sp. (notes) 868–886; *Caiman crocodilus* (repro., seas., in wild) 907–919; *Callisaurus draconoides*, *Cophosaurus texanus* (antipred. beh. rel. to environ. factors) 980–992; *Sceloporus jarrovi* (yearly fluct. in survival at highest elev. of sp. distrib.) 1040–1042.

EGGS. *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (kempi, olivacea), *Natatar depressa* (# & size rel. to body size, spp. & popn. compar.) 66–81; *Cyprinodon radiosus* (size unrel. to size of mother or fry) 100–107; *Plecoglossus altivelis* (size & # rel. to salin. & temp. toler.) 184–190; *Aprasia* (8 spp.) (ovipar.) 390–398; *Stenodus leucichthys nelma* (descript., compare to other sympatric whitefishes) 472–484; *Eumeces fasciatus* (dev. of embryos after oviposit.) 493–498; *Triturus* (*helveticus*, *alpestris*, *cristatus*) (egg-wrapping reduces egg pred.) 535–537; *Rana sylvatica*, *Bufo americanus* (opportun. pred. by tdpls.) 691–697; *Ichthyomyzon gagei* (geogr. var. in size) 718–725; *Eumeces okadae* (size divers. in island popns. rel. to pred.) 732–747; *Cnemidophorus murinus* (very large) 760–766; *Anolis opalinus* (mat. size rel. to egg size not #) 767–780; sea turtles (cheap method to meas. daily av. nest temp.) 808–811; *Etheostoma zonale* (egg depos. beh. in phylogen. anal.) 818–821; *Etheostoma lynceum* (eff. of diff. drying temps. on egg weight meas.) 821–823; *Etheostoma parvipinnae* (spawning beh., egg attachment) 823–825; *Caiman crocodilus* (size, rel. to mat. & clutch size, seas. in wild) 907–919; squamate reptiles (standardized criteria for embryon. nutrit. determ.) 925–935; *Neoceratodus forsteri* (descript., pathol. in wild eggs hatched in lab) 935–943; *Rana sylvatica*, centrarchid fishes (frogs choose fish-free ponds to lay eggs) 1023–1025; *Chrysomys picta bellii* (size & shape var. btwn. popns., rel. to mat. & clutch size) 1034–1040; *Natrix tessellata*, *Crotalus atrox* (*Natrix* embryos inhibit *Crotalus* venom) 1050–1053.

ENDANGERED SPECIES. *Chelonia mydas* (natal homing, popn. struct., mtDNA evid.) 34–41; *Ptychocheilus* (*lucius*, *grandis*, *umpqua*, *oregonensis*), *Mylopharodon conocephalus*, *Lavinia exilicauda* (phylogen. anal., possible n. sp. of *Ptychocheilus*) 60–65; *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (kempi, olivacea), *Natatar depressa* (reprod. diffs. btwn. spp. & popns., rel. to body size) 66–81; *Notropis suttkusi* n. sp. (possibly endang.) 82–90; *Gasterosteus aculeatus* (conserv. of popns. w/ pelvic reduction) 314–325; *Mycteroperca tigris* (aggreg. spawning may endanger this sp.) 511–516; *Cyprinodon elegans*,

variegatus (low level hybrid. of endang. *C. elegans* by introd. *C. variegatus*) 590–597; *Thalassoma duperrey*, *Chelonia mydas* (wrasses remove parasites from endang. turtles) 684–690; sea turtles (cheap method to meas. daily av. nest temp.) 808–811; *Eretmochelys imbricata* (growth rates in wild juvs., mark & recap.) 811–814; *Notropis albinzonatus* n. sp. (n. sp. endang., hab. alter.) 868–886.

EVOLUTION. *Naja naja*, *Vipera ammodytes*, *Coluber constrictor priapus*, *Boa constrictor imperator* (of front-fanged venom systs.) 1–9; *Poecilia latipinna* (sex. select. in access to females) 27–34; *Hyla chrysoscelis* × *versicolor* (evid. of select. against hybrids) 51–59; *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (kempi, olivacea), *Natatar depressa* (evol. consequences of life hist. diffs. btwn. spp. & popns.) 66–81; *Neoseps reynoldsi*, *Sphenops sepioides* (physiol. convergence in sand-swimming lizards) 91–99; *Cyprinodon radiosus* (lack of correl. btwn. size of mother, eggs, & fry) 100–107; *Epipedobates trivittatus* (evid. for select. for female mate choice) 107–115; *Plecoglossus altivelis* (select. factors on egg size) 184–190; haplochromine cichlids (32 gen., 40 spp.) (evid. of rapid evol., mtDNA data) 274–288; squamate reptiles (56 spp.) (evol. rels. informed by clad. anal. of rDNA loc) 302–313; *Gasterosteus aculeatus* (of pelvic reduction, rapid separate evol. in diff. popns.) 314–325; snakes (8 fams., 374 spp.) (select. factors in sex. size dimorph.) 326–346; *Bathycetopsis* n. gen. *oliveirai* n. sp. (of eyeless depigmented catfishes) 381–390; *Aprasia* (8 spp.) (converg. evol. of myrmecophagy) 390–398; *Poecilia* (*latipinna*, *formosa*) (select. for compet. btwn. females for mates, unisex./bisex. diffs.) 504–508; *Gasterosteus wheatlandi* (low lateral plate counts due to neoteny) 508–511; *Labroides* (*phthiropagus*, *dimidiatus*) (select. pressures for ability to shift btwn. juv. & adult coloration) 520–524; *Ambystoma* (*tigrinum*, *macrodictylum*), *Plethodon jordani* (of adhesiveness in granular gland anti-pred. secr.) 540–541; *Rhyacoscireon* = *Ambystoma* (*altamirani*, *rivularis*, *leorae*), *Ambystoma* (*dumerilii*, *mexicanum*, *tigrinum*, *ordinarium*) (of partial paedomorph., rel. to ecol.) 656–662; *Algansea* (*m. monticola*, *m. archidion* n. subsp., *avia*, *aphanea*, *barbata*) (histor. biogeogr., geogr. var. diff. in males & females) 662–676; *Rana sylvatica*, *Bufo americanus* (evol. signif. of opportun. pred. by tdpls.) 691–697; *Eumeces okadae* (adapt. signif. of divers. in life hist. traits in island popns.) 732–747; *Colostethus stephni* (of unique repro. mode) 747–750; *Salvelinus namaycush* (genet. diverg. btwn. 3 apparent ecophenotypes, sympat. diverg.) 843–850; *Girardinichthys multiradiatus* (of sex. dimorph.) 919–925.

FECUNDITY. *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (kempi, olivacea), *Natatar depressa* (& other reprod. diffs. btwn. spp. & popns., rel. to body size) 66–81; *Cyprinodon radiosus* (size of eggs unrel. to size of mother or fry) 100–107; *Sceloporus un-*

- dulatus* (popn. compar.) 136-152; *Cyclothone kobayashii* n. sp. (of a few specimens) 191-204; *Chelydra serpentina* (leach infest. not reduce turtle fec.) 228-231; snakes (8 fams., 374 spp.) (rel. to sex. size dimorph.) 326-346; *Mycteroperca tigris* (estim. annual fec.) 511-516; *Ichthyomyzon gagei* (geogr. var. rel. to pH & body size) 718-725; *Eumeces okadae* (divers. in island popns. rel. to pred.) 732-747; *Cnemidophorus murinus* (very low) 760-766; *Caiman crocodilus* (in wild) 907-919; *Hyla chrysocelis* (diff. btwn. prolonged breeder & explosive breeders, year-long ovary anal.) 1014-1022.
- FEEDING**, *Draco volans sumatranus* (beh., myrmecoph., video data) 124-130; *Sceloporus jarrovi*, *virgatus*, *Urosaurus ornatus*, *Cophosaurus texanus* (tongue-flicking rel. to foraging) 234-237; *Amphiprion perideraion* (method & rate in larvae) 242-246; *Aprasia* (8 spp.) (myrmecophagy) 390-398; *Serrasalmus*, *Pygocentrus*, *Pristobrycon*, *Pygopristis*, *Catophrion* (nutrient content of piranha prey items rel. to var. feeding strategies) 524-528; *Rhyacodromus* = *Ambystoma* (*altamirani*, *rivularis*, *leorae*), *Ambystoma* (*dumerilii*, *mexicanum*, *tigrinum*, *ordinarium*) (unique type paedomorph., rel. to feeding) 656-662; *Dicamptodon tenebrosus* (larv. diet, diel ptns., ontogen. change) 705-718; *Colostethus stephensi* (unique repro. mode with non-feeding larv.) 747-750.
- FOOD**, *Draco volans sumatranus* (myrmecophagy) 124-130; *Sceloporus undulatus* (stom. cont.) 136-152; *Aprasia* (8 spp.) (myrmecophagy) 390-398; *Rana* (*lessoniae*, *esculenta*) (avail. aff. mat. & pat. contrib. to hatchl. fitness) 406-412; *Hyla regilla* (larv. growth on diff. diets) 446-457; *Serrasalmus*, *Pygocentrus*, *Pristobrycon*, *Pygopristis*, *Catophrion* (nutr. content of piranha prey: whole fish, fins & scales) 524-528; *Dicamptodon tenebrosus* (larv. diet, ontogen. change) 705-718; *Eumeces okadae* (diet, stom. conts., divers. in island popns. rel. to pred.) 732-747; *Cnemidophorus murinus* (poor qual. rel. to unusual repro.) 760-766; Australian snakes (4 fams., 103 spp.) (prey types rel. to body size) 851-867; squamate reptiles (standardized criteria for embryon. nutrit. determ.) 925-935; *Angolosaurus skoogi* (intake at diff. temps.) 962-974; *Sceloporus jarrovi* (abund. rel. to growth rate var.) 1007-1013; *Hyla chrysocelis* (abund. may determ. # of clutches in prolonged breeder) 1014-1022.
- GENETICS**, *Hyla chrysocelis* × *versicolor* (natural triploid hybrids) 51-59; *Ptychocheilus* (*lucius*, *grandis*, *umpqua*, *oregonensis*), *Mylopharodon conocephalus*, *Lavinia exilicauda* (genome size as phylogen. trait) 60-65; haplochromine cichlids (32 gen., 40 spp.) (very low gen. divers., high morph. divers.) 274-288; squamate reptiles (56 spp.) (rDNA loc., phylogen. anal.) 302-313; *Rana* (*lessoniae*, *esculenta*) (interact. of mat. & pat. genets. in hatchl. var.) 406-412; *Cyprinodon* (*elegans*, *variegatus*) (low level gen. introgression) 590-597; *Richardsonius* (*balteatus*, *egregius*) (compare G-banding of NOR's, genome sizes, in phylogen. anal.) 815-818; *Ginglymostoma cirratum* (first triploid indiv. chondrichthyan) 825-827; *Salvelinus namaycush* (genet. diverg. btwn. 3 apparent ecophenotypes) 843-850.
- GEOGRAPHIC LOCALITIES**
- Alabama, *Hyla cinerea* 422-432; *Ichthyomyzon gagei* 718-725; *Notropis albizonatus* n. sp. 868-886.
- Alaska, *Gasterosteus aculeatus* 314-325; *Stenodus leucichthys nelma* 472-484.
- Antigua, sea turtles 808-811.
- Arizona, *Cyprinella lutrensis*, *Meda fulgida* 9-19; *Sceloporus* (*jarrovi*, *virgatus*), *Urosaurus ornatus*, *Cophosaurus texanus* 234-237; *Thamnophis marcianus* 537-540; *Sceloporus jarrovi* 1007-1013, 1040-1042; *Cnemidophorus* (*t. tigris*, *t. septentrionalis*, *t. gracilis*) 1047-1050.
- Arkansas, *Coluber constrictor priapus* 1-9; *Notropis* (*suthusi* n. sp., *rubellus*) 82-90; *Ichthyomyzon gagei* 718-725; *Etheostoma zonale* 818-821.
- Atlantic Ocean, *Coryphaenoides* (NW) 42-50; *Cyclothone kobayashii* n. sp. (S) 191-204; *Raja* (*Dipturus*) *floridana* = *R. (D.) teevani* (NW) 433-445.
- Australia, *Varanus rosenbergi* (SA) 289-295; *Champsodon* (*sagittus* n. sp., *pantolepis* n. sp.) (WA) 347-371; *Champsodon machaeratus* n. sp. (QLD, NSW) 347-371; *Aprasia* (8 spp.) 390-398; *Notoraja ochroderma* n. sp. (QLD) 413-421; *Heteronotia binooi* sp. complex (WA) 484-492; *Acrochordus arafurus* (NT) 726-731; *Elseya latisternum* (NSW) 802-806; Australian snakes (4 fams., 103 spp.) 851-867; *Neoceratodus forsteri* (QLD) 935-943.
- Bahamas, *Anolis sagrei* 598-613.
- Belize, *Acanthemblemaria* (*greenfieldi*, *paula*, *maria*, *spinosa*, *aspera*), *Emblemaria pandionis* 398-405.
- Borneo, *Draco volans sumatranus* (Sarawak) 124-130.
- Brazil, *Bathycetopsis* n. gen. *oliveirai* n. sp. 381-390; *Colostethus stephensi* 747-750; *Psammobatis* (*glans-dissimilis* = *extenta*) 1029-1033.
- California, *Ptychocheilus grandis*, *Mylopharodon conocephalus*, *Lavinia exilicauda* 60-65; *Cyprinodon radiosus* 100-107; *Hyla regilla* 446-457; *Myliobatis californica* 529-532; *Crotalus cerastes* 631-645; *Dicamptodon tenebrosus* 705-718; *Sceloporus graciosus* 944-955; *Callisaurus draconoides* 980-992; *Cnemidophorus* (*t. tigris*, *t. septentrionalis*, *t. gracilis*) 1047-1050.
- Canada, *Chelydra serpentina* (Ont.) 222-226; 228-231; *Thamnophis* (*sirtalis*, *ordinoides*) (Brit. Col.) 263-274; *Salvelinus namaycush* (Ont.) 843-850; *Gadus morhua* (Newf.) 1025-1029.
- Caribbean Sea, *Raja* (*Dipturus*) *floridana* = *R. (D.) teevani* 433-445; *Neobythites* (*unicolor* n. sp., *elongatus* n. sp.) 992-995.
- Caroline Is., *Naso* (*Axinurus*) *thynnoides* 116-124.
- Colorado, *Ambystoma tigrinum* 656-662.
- Coral Sea, *Polyipnus* (*latistratus* n. sp., *paxtoni*, *elongatus*) 210-215.
- Costa Rica, *Chelonia mydas* 34-41.
- Florida, *Poecilia latipinna* 27-34; *Chelonia mydas* 34-41; *Neoseps reynoldsi* 91-99; *Hyla cinerea* 422-432; *Gambusia holbrooki*, *Heterandria formosa* 516-520; *Ginglymostoma cirratum* 646-656, 825-827; *Sternotherus minor* 676-684.
- France, *Triturus* (*helveticus*, *alpestris*, *cristatus*) 535-537.

- French Guyana, *Raja (Dipturus) floridana* = *R. (D.) teevani* 433-445.
- Germany, *Palaeobatrachus* sp. 232-233.
- Grenada, *Eleutherodactylus euphronides* n. sp. 780-796.
- Gulf of Mexico, *Coryphaenoides* 42-50; *Raja (Dipturus) floridana* = *R. (D.) teevani* 433-445.
- Hawaii, *Labroides phithiophagus* 520-524; *Thalassoma duperry*, *Chelonia mydas* 684-690.
- Idaho, *Cnemidophorus (t. tigris, t. septentrionalis, t. gracilis)* 1047-1050.
- Illinois, *Ambystoma tigrinum* 540-541, 656-662.
- Indian Ocean, *Cyclothone kobayashii* n. sp. (S) 191-204.
- Indonesia, *Naso (Axinurus) (thynnoides, minor, caeruleacauda* n. sp.) 116-124; *Champsodon sagittus* n. sp. 347-371.
- Ivory Coast, *Hyperolius viridiflavus nitidulus* 996-1007.
- Jamaica, *Anolis opalinus* 767-780.
- Japan, *Naso (Axinurus) thynnoides* 116-124; *Plecoglossus altivelis* 184-190; *Champsodon pantolepis* n. sp. 347-371; *Eumeces okadae* 732-747; *Cyprinus carpio* 956-961.
- Kansas, *Notropis rubellus* 82-90.
- Kentucky, *Notropis albizonatus* n. sp. 868-886.
- Kenya, *Afroacaecilia* = *Boulengerula (changamwensis, taitanus)* 750-760.
- Lesser Antilles, *Raja (Dipturus) floridana* = *R. (D.) teevani* 433-445; *Eleutherodactylus (urichi, euphronides* n. sp., *shrevei* n. sp.) 780-796.
- Liberia, *Osteolaemus tetraspis* 533-535.
- Lizard Is., *Labroides dimidiatus* 520-524.
- Louisiana, *Ichthyomyzon gagei* 718-725.
- Maine, *Gasterosteus wheatlandi* 508-511.
- Malawi, haplochromine cichlids (32 gen., 40 spp.) 274-288; *Afroacaecilia* = *Boulengerula changamwensis* 750-760.
- Maldives Is., *Naso (Axinurus) thynnoides* 116-124.
- Mexico, *Boa constrictor imperator* 1-9; *Lampetra spadicea* 499-504; *Thamnophis melanogaster* 537-540; *Thorius (aureus* n. sp., *arbores* n. sp., *boreas* n. sp., *smithi* n. sp., *insperatus* n. sp., *macdougalli*) (Oax.) 573-590; *Rhyacosiredon* = *Ambsoma (altamirani, rivularis, leorae)*, *Ambystoma (dumerilii, mexicanum, ordinarium)* 656-662; *Algansea (m. monticola, m. archidion* n. subsp., *avia, aphaea, barbata*) 662-676; *Cyprinella alvarezdelvillari* n. sp. (Dur.) 897-906; *Girardinichthys multiradiatus* 919-925.
- Michigan, *Thamnophis (sirtalis, butleri)* 537-540; *Salvelinus namaycush* 843-850.
- Minnesota, *Ichthyomyzon castaneus* 499-504; *Salvelinus namaycush* 843-850.
- Mississippi, *Sceloporus undulatus* 136-152; *Dorosoma cepedianum*, *Pomoxis* spp., *Etheostoma* spp., *Percina* spp., *Lepomis* spp., *Gambusia affinis*, *Cyprinella* spp., *Notropis* spp. 174-183; *Ichthyomyzon gagei* 718-725; *Etheostoma lyncium* 821-823; *Etheostoma parvipinne* 823-825.
- Missouri, *Hyla chrysoscelis* × *versicolor* 51-59; *Notropis rubellus* 82-90; *Micropterus dolomieu* × *punctulatus* 204-210.
- Mozambique, *Naso (Axinurus) minor* 116-124; *Hyperolius marmoratus taeniatus* 996-1007.
- Namibia, *Angolosaurus shoogi* 962-974.
- Nebraska, *Chrysemys picta bellii* 1034-1040.
- Netherlands Antilles, *Cnemidophorus murinus* 760-766.
- Nevada, *Cnemidophorus (t. tigris, t. septentrionalis, t. gracilis)* 1047-1050.
- New Guinea, *Champsodon sagittus* n. sp. 347-371.
- New Jersey, *Paralichthys dentatus* 458-465.
- New Mexico, *Cyprinella lutrensis*, *Meda fulgida* 9-19; *Ptychocheilus lucius* 60-65; *Callisaurus draconoides*, *Cophosaurus texanus* 980-992.
- New York, *Petromyzon marinus* 499-504; *Gasterosteus wheatlandi* 508-511.
- North Carolina, *Plethodon jordani* 540-541; *Rana sylvatica*, *Bufo americanus* 691-697; *Rana sylvatica*, centrarchid fishes 1023-1025.
- Ohio, *Chrysemys picta* 466-471.
- Oklahoma, *Notropis (suttkusi* n. sp., *rubellus*) 82-90; *Eumeces fasciatus* 493-498.
- Oregon, *Ptychocheilus (umpqua, oregonensis)* 60-65; *Ascelichthys rhodoris*, *Oligocottus (maculosus, Snyderi)*, *Clinocottus globiceps*, *Anoplarchus purpurescens* 153-158.
- Pacific Ocean, *Coryphaenoides* (NE) 42-50; *Cyclothone kobayashii* n. sp. (S) 191-204; *Polypterus (latrostrus* n. sp., *paxtoni, elongatus*) (W) 210-215; *Notoraja ochroderma* n. sp. (S) 413-421.
- Pakistan, *Naja naja* 1-9.
- Panama, *Anolis limifrons* 613-622.
- Peru, *Epipedobates trivittatus* 107-115.
- Philippines, *Naso (Axinurus) (thynnoides, minor, caeruleacauda* n. sp.) 116-124; *Lycodon (alcalai* n. sp., *bibonius* n. sp., *chrysoprateros* n. sp., *solivagus* n. sp., *aulicus capucinus*, *subcinctus sealei*, *tessellatus*, *mueleri*, *dumerilii*) 159-174; *Champsodon sagittus* n. sp. 347-371.
- Puerto Rico, *Mycteroperca tigris* 511-516.
- Reunion Is., *Naso (Axinurus) minor* 116-124.
- Rhode Island, *Gasterosteus (aculeatus, wheatlandi)* 698-704.
- Rwanda, *Boulengerula fischeri* n. sp. 750-760.
- St. Vincent, *Eleutherodactylus shrevei* n. sp. 780-796.
- Society Is., *Emoia (cyanura, impar)* 1042-1047.
- Solomon Is., *Naso (Axinurus) thynnoides* 116-124.
- South Carolina, *Coluber constrictor* 20-26; *Gambusia holbrooki*, *Heterandria formosa* 296-302.
- South Dakota, *Thamnophis radix* 537-540.
- Spain, *Gambusia affinis holbrooki* 216-221.
- Suriname, *Raja (Dipturus) floridana* = *R. (D.) teevani* 433-445; sea turtles 808-811.
- Switzerland, *Rana (lessonae, esculenta)* 406-412.
- Tanzania, *Afroacaecilia* = *Boulengerula uluguruensis*, *Boulengerula boulengeri* 750-760.
- Tennessee, *Ichthyomyzon bdellium* 499-504; *Notropis albizonatus* n. sp. 868-886; *Hyla chrysoscelis* 1014-1022.
- Texas, *Thamnophis (marcianus, proximus)*, *Nerodia (erythrogaster, fasciata, rhombifer)* 226-228; *Scaaphiopus couchii* 372-381; *Poecilia (latipinna, formosa)* 504-508; *Cyprinodon (elegans, variegatus)* 590-597; *Ichthyomyzon gagei* 718-725.
- Tobago, *Eleutherodactylus urichi* 780-796.
- Trinidad, *Eleutherodactylus urichi* 780-796.
- Uganda, *Synodontis afroscheri* 130-135; *Clarias lioccephalus* 246-249.
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- Emblemaria atlantica* 398-405; sea turtles 808-811; *Eretmochelys imbricata* 811-814.
- Utah, *Cnemidophorus* (*t. tigris*, *t. septentrionalis*, *t. gracilis*) 1047-1050.
- Venezuela, *Autanichthys giacopinii* = *Bryconops giacopinii* 238-242; *Serrasalmus*, *Pygocentrus*, *Pristobrycon*, *Pygopristis*, *Catoptrion* 524-528; *Tupinambis teguixin* 806-808; *Caiman crocodilus* 907-919; *Creagrutus hyginus* n. sp. 975-979.
- Virginia, *Notropis rubellus* 82-90; *Ichthyomyzon bdellium* 499-504.
- Washington, *Ambystoma macrodactylum* 540-541.
- Wisconsin, *Ichthyomyzon castaneus* 499-504; *Salvelinus namaycush* 843-850.
- Zaire, *Synodontis nigriventris* 130-135.
- GRANULAR GLAND, *Ambystoma* (*tigrinum*, *macrodactylum*), *Plethodon jordani* (anal. of adhesive antipred. secr.) 540-541.
- GROWTH, *Sceloporus undulatus* (in wild popn.) 136-152; *Palaeobatrachus* sp. (growth rings in fossil frog bones) 232-233; *Rana* (*lessoneae*, *esculenta*) (mat. & pat. contrib. to hatchl. growth) 406-412; *Hyla regilla* (larv. resp. to diff. algae & detritus diets) 446-457; *Eumeces fasciatus* (of embryos after oviposition) 493-498; *Anolis sagrei* (null growth-based models used to anal. sex. size dimorph.) 598-613; *Anolis limifrons* (null growth-based models used to anal. sex. size dimorph.) 613-622; *Acrochordus arafurae* (very slow, sex. dimorph., lower when repro.) 726-731; *Eretmochelys imbricata* (rates in wild juvs., mark & recap.) 811-814; *Sceloporus jarrovi* (rate var. in wild, popns. at diff. altitudes) 1007-1013.
- HABITAT, *Cyprinella lutrensis*, *Meda fulgida* (introd. fish alters hab. of native) 9-19; *Coluber constrictor* (radiotel. of activ., microhab., home range, popn. compar.) 20-26; *Naso* (*Axinurus*) (*thynnoides*, minor, *caeruleacauda* n. sp.) (notes) 116-124; *Draco volans sumatranus* (hab. use, video data) 124-130; *Sceloporus undulatus* (perch type by age-sex class in wild popn.) 136-152; *Chelydra serpentina* (of hibernacula in far north) 222-226; *Scaphiopus couchii* (microhab. of metamorphs., body size rel. to water loss) 372-381; *Acanthemblemaria* (*greenfieldi*, *paula*, *maria*, *spinosa*, *aspera*), *Emblemaria* (*atlantica*, *pandionis*) (partit. in hole-dwelling fishes) 398-405; *Paralichthys dentatus* (pref. in metamorphs. & juvs.) 458-465; *Thorius* (*aureus* n. sp., *arbores* n. sp., *boreas* n. sp., *smithi* n. sp., *insperatus* n. sp., *macdougalli*) (elevation-specific) 573-590; *Crotalus cerastes* (seas. diffs., hibernacula) 631-645; *Gasterosteus* (*aculeatus*, *wheatlandi*) (nest site microhab. pref., compet. & coexist.) 698-704; *Cyprinella alvarezdelvillari* n. sp. (notes) 897-906; *Girardinichthys multiradiatus* (rel. to repro. beh., sex. dimorph.) 919-925; *Creagrutus hyginus* n. sp. (notes) 975-979; *Callisaurus draconoides*, *Cophosaurus texanus* (antipred. beh. rel. to hab.) 980-992; *Sceloporus jarrovi* (yearly fluct. in survival at highest elev.) 1040-1042.
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- HISTOLOGY, *Gambusia affinis holbrooki* (eff. of temp. & photoper. on testis) 216-221; *Palaeobatrachus* sp. (growth rings in fossil frog bones) 232-233; *Heteronotia binoei* sp. complex (of ovaries & oviducts, sex. & parthen. forms) 484-492; *Cyprinus carpio* (epidermis thickness, mucus & alarm subst. gland distrib., on scales) 956-961.
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- LIFE HISTORY, *Caretta caretta*, *Chelonia mydas*, *Dermodochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (*kemp*, *olivacea*), *Natalar depressa* (body size & repro. beh. trait correl. btwn. spp. & popns.) 66-81; *Sceloporus undulatus* (life table compar. btwn. popns.) 136-152; *Rana* (*lessoneae*, *esculenta*) (mat. & pat. contrib. in rel. btwn. hatchl. size & fitness) 406-412; *Hyla regilla* (diet diffs. aff. time to & wt. at metamorph.) 446-457; *Ichthyomyzon gagei* (geogr. var. in fecund., egg size & sex ratio, rel. to pH & body size) 718-725; *Eumeces okadae* (divers. in life hist. traits in island popns. rel. to pred.) 732-747; Australian snakes (4 fams., 103 spp.) (most interspp. diffs. rel. to body size) 851-867; *Caiman crocodilus* (repro. factors in wild) 907-919.
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- ammodytes*, *Coluber constrictor priapus*, *Boa constrictor imperator* (clad. anal., mtDNA data, rel. to evol. of front-fanged venom systs.) 1-9; *Coryphaenoides* (3 of the 4 subgen.) (4 methods, allelic freq. & peptide map data) 42-50; *Ptychocheilus* (*lucius*, *grandis*, *umpquae*, *oregonensis*), *Mylopharodon conocephalus*, *Lavinia exilicauda* (clad. anal., NOR kar., genome size data) 60-65; *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (*hempi*, *olivacea*), *Natator depressa* (repro. traits & body size correl. data, mult. popns.) 66-81; *Notropis* (*suttlesi*) n. sp., *rubellus*, *atherinoides*, *oligaspis*, *percobromus* (clad. notes, morph. & pigment data) 82-90; *Naso* (*Axinurus*) (*thynnoides*, *minor*, *caeruleacauda* n. sp.) (clad. notes on subgenus) 116-124; *Polypterus* (*latirastus*) n. sp., *paxtoni*, *elongatus* (mult. charcs., p. spinosus sp. group) 210-215; *Autanichthys giacopinii* = *Bryconops giacopinii* (notes on synonym., compar. to congeners) 238-242; haplochromine cichlids (32 gen., 40 spp.) clad. & phenetic anal., mtDNA data) 274-288; squamate reptiles (56 spp.) (clad. anal., rDNA loc.) 302-313; *Notoraja ochroderma* n. sp. (notes on rel. btwn. genera) 413-421; *Gasterosteus wheatlandi* (low lateral plate counts deter. as synapomorph. for *Gasterosteus*) 508-511; *Hybognathus* (all 7 spp.) (clad. anal., osteol. & alloz. charcs.) 622-630; *Rhyacosioreodon* = *Ambystoma* (*altamirani*, *rivularis*, *leorae*), *Ambystoma* (*dumerilii*, *mexicanum*, *tigrinum*, *ordinarium*) (unique type paedomorph., polyphyl., clad. anal., osteol. & alloz. data) 656-662; *Afroacaecilia* = *Boulengerula* (*changawensis*, *taitanus*, *uluguruensis*), *Boulengerula* (*boulengeri*, *fischeri*) n. sp. (clad. anal., morph. data) 750-760; *Richardsonius* (*balteatus*, *egregius*) (clad. affin. determ. with G-banding of NOR's) 815-818; *Ethecosoma zonale* (repro. beh. in phylogen. anal.) 818-821; *Salvelinus namaycush* (of genet. diverg. btwn. 3 apparent ecophenotypes, osteol. data) 843-850; Australian snakes (4 fams., 103 spp.) (phylogen. conserv. in interspp. ecol. diffs.) 851-867; *Notropis* (*albizonatus* n. sp., *procne* sp. group) (clad. anal. of sp. group, biogeogr. hypoth.) 868-886; *Cypripella alvarezdelvillari* n. sp. (clad. rels. to *C. lepida* clade) 897-906.
- PHYSIOLOGY**, *Neoseps reynoldsi*, *Sphenops sepsoides* (convergence in unrelated sand-swimming lizards) 91-99; *Synodontis* (*nigriventris*, *afrofisheri*) (respir. funct. for upside-down swimming) 130-135; *Ascelichthys rhodorus*, *Oligocottus* (*maculosus*, *snyderi*), *Clinocottus globiceps*, *Anoplarchus purpurascens* (air respir., temperate intertidal fish) 153-158; *Varanus rosenbergi* (popn. energetics, seas. var.) 289-295; *Scaphiopus couchii* (water balance rel. to size of metamorphs.) 372-381; *Hyla cinerea* (color change) 422-432; *Eumeces fasciatus* (calcium utiliz. in dev. embryos) 493-498; *Serrasalmus*, *Pygocentrus*, *Pristobrycon*, *Pygopristis*, *Catopirion* (nutr. content of piranha prey items) 524-528; *Myliobatis californica* (eff. of temp. on O₂ consump. across wide range of temps.) 529-532; *Ambystoma* (*tigrinum*, *macrodactylum*), *Plethodon jordani* (anal. of adhesive anti-pred. granular gland secr.) 540-541; *Elseya latisternum* (body structures. involved in aquat. resp.) 802-806; *Bufo marinus* (unexpected lack of correl. btwn. many physiol. & morph. factors & exercise) 887-896; *Angolosaurus skoogi* (energy & water intake, met. rate, evap. water loss, rel. to temp.) 962-974; *Hyperolius* (*viridiflavus* *omastictus*, v. *nitidulus*, *marmoratus taeniatus*) (larv. adapt. to crowding aff. metamorphs.) 996-1007.
- POPULATIONS**, *Coluber constrictor* (radiotel. of activ., microhab., home range; popn. compar.) 20-26; *Chelonia mydas* (natal homing, diff. male & female popn. components, mtDNA evid.) 34-41; *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (*hempi*, *olivacea*), *Natator depressa* (reprod. diffs. btwn. spp. & popns., rel. to body size) 66-81; *Sceloporus undulatus* (popn. compar. of repro., mortal., growth, popn. dens.) 136-152; *Plecoglossus altivelis* (repro. charcs. of land-locked & amphidromous popns.) 184-190; *Thamophis* (*sirtalis*, *ordinoides*) (compare orient. beh. in non-migr. popns. of migr. & non-migr. spp.) 263-274; *Varanus rosenbergi* (popn. energetics, seas. var., rel. to other popns.) 289-295; *Gambusia holbrooki*, *Heterandria formosa* (pred. vs. compet. btwn. spp., exper. popns.) 296-302; *Gasterosteus aculeatus* (independent evol. of pelvic reduction in diff. popns.) 314-325; *Gasterosteus wheatlandi* (lateral plate counts vary clinally. N to S) 508-511; *Gambusia holbrooki*, *Heterandria formosa* (popn. dens. in a swamp) 516-520; *Ichthyomyzon gagei* (geogr. var. in fecund., egg size & sex ratio, rel. to pH & body size) 718-725; *Eumeces okadae* (divers. in life hist. traits in island popns. rel. to pred.) 732-747; *Girardinichthys multiradiatus* (popn. diffs. in male age & sex. dimorph.) 919-925; *Callisaurus draconoides*, *Cophosaurus texanus* (interpopn. diffs. in antipred. beh. rel. to environ. factors) 980-992; *Sceloporus jarrovi* (interpopn. growth rate compar., rel. to food abund.) 1007-1013; *Chrysemys picta bellii* (egg size & shape var. btwn. popns., rel. to mat. & clutch size) 1034-1040.
- PREDATION**, *Draco volans sumatranus* (sit-&-wait pred., myrmecophagy) 124-130; *Sceloporus undulatus* (prey type from stom. cont., injury due to pred.) 136-152; *Chelydra serpentina* (on turtles during hiber.) 222-226; *Amphiprion perideraion* (video of feeding strikes by larvae) 242-246; *Clarias biocephalus* (synchronous air-breathing as pred. defense) 246-249; *Gambusia holbrooki*, *Heterandria formosa* (pred. vs. compet. btwn. spp., exper. popns.) 296-302; *Gasterosteus aculeatus* (rel. to evol. of pelvic reduction) 314-325; *Aprasia* (8 spp.) (body size rel. to prey size in myrmecophagy) 390-398; *Hyla cinerea* (color change rel. to pred. detect. & temp.) 422-432; *Paralichthys dentatus* (rel. to burying beh. in metamorphs. & juvs.) 458-465; *Gambusia holbrooki*, *Heterandria formosa* (of *G. holbrooki* on *H. formosa*, of both on invertebrates) 516-520; *Serrasalmus*, *Pygocentrus*, *Pristobrycon*, *Pygopristis*, *Catopirion* (nutr. content of piranha prey items rel. to var. pred. strategies) 524-528; *Triturus* (*helveticus*, *alpestris*, *cristatus*) (egg-wrapping reduces egg pred.) 535-537; *Ambystoma* (*tigrinum*, *macrodactylum*), *Plethodon jor-*

dani (anal. of adhesive anti-pred. granular gland secr.) 540–541; *Rana sylvatica*, *Bufo americanus* (opportun. pred. by tadpls., evol. signif.) 691–697; *Dicamptodon tenebrosus* (prey types of larv., stom. conts., ontogen. change) 705–718; *Eumeces okadae* (strong eff. on divers. in life hist. traits in island popns.) 732–747; Australian snakes (4 fams., 103 spp.) (prey types rel. to body size) 851–867; *Callisaurus draconoides*, *Cophosaurus texanus* (antipred. beh. rel. to environ. factors) 980–992; *Rana sylvatica*, centrarchid fishes (frogs choose fish-free ponds to lay eggs) 1023–1025.

REPRODUCTION, *Poecilia latipinna* (male response to female advrtsmnt., mating beh.) 27–34; *Chelonia mydas* (natal homing, mtDNA evid.) 34–41; *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (hemp., olive), *Natatar depressa* (reprod. diffs. btwn. spp. & popns., rel. to body size) 66–81; *Cyprinodon radiosus* (size of eggs unrel. to size of mother or fry) 100–107; *Epipedobates trivittatus* (territ. & calls rel. to male mating success) 107–115; *Draco volans sumatranus* (crtshp. beh.) 124–130; *Sceloporus undulatus* (ann. var., popn. compar., matur. age, fec.) 136–152; *Dorosoma cepedianum*, *Pomoxis* spp., *Etheostoma* spp., *Percina* spp., *Lepomis* spp., *Gambusia affinis*, *Cyprinella* spp., *Notropis* spp. (seas. rel. to distrib. of larv. & juv. fishes in floodplain river) 174–183; *Plecoglossus altivelis* (compare landlocked & amphidromous popns.) 184–190; *Cyclothone kobayashii* n. sp. (seas., fec.) 191–204; *Gambusia affinis holbrooki* (eff. of temp. & photoper. on spermatogen.) 216–221; *Chelydra serpentina* (leach infest. not reduce turtle repro.) 228–231; snakes (8 fams., 374 spp.) (sex. size dimorph. rel. to repro.) 326–346; *Aprasia* (8 spp.) (ovipar., repro. seas.) 390–398; *Heteronotia binoi* sp. complex (repro. morph. in sex. & parthen. forms) 484–492; *Poecilia latipinna*, *formosa* (compet. beh. btwn. females for mates, unisex./bisex. diffs.) 504–508; *Mycteroperca tigris* (seas., aggreg., ctshp., spawning, video data) 511–516; *Osteolaemus tetraspis* (plasma estradiol & testost. changes in captives near natural hab.) 533–535; *Triturus* (*helveticus*, *alpestris*, *cristatus*) (egg-wrapping reduces egg pred.) 535–537; *Ginglymostoma cirratum* (mating incl. cop., video) 646–656; *Sternotherus minor* (crtshp. beh., video data) 676–684; *Rana sylvatica*, *Bufo americanus* (impact of opportun. pred. by tadpls. on breeding site choice of other anurans) 691–697; *Gasterosteus* (*aculeatus*, *wheatlandi*) (nest site competit.) 698–704; *Ichthyomyzon gagei* (geogr. var. in fecund. & egg size, rel. to pH & body size) 718–725; *Ichthyomyzon gagei* (reduces growth rates, both genders) 726–731; *Colostethus stepheni* (unique repro. mode) 747–750; *Cnemidophorus murinus* (unusual, no seas., one lg. egg, unusual sex. dimorph.) 760–766; *Anolis opalinus* (high repro. rate, males non-seas., females seas.) 767–780; sea turtles (cheap method to meas. daily av. nest temp.) 808–811; *Etheostoma zonale* (repro. beh. in phy-

logen. anal.) 818–821; *Etheostoma lynceum* (eff. of diff. drying temps. on egg weight meas.) 821–823; *Etheostoma parvipinne* (spawning beh. in captiv.) 823–825; *Salvelinus namaycush* (repro. seas. isolates 3 apparent ecophenotypes) 843–850; Australian snakes (4 fams., 103 spp.) (most interspp. diffs. rel. to body size) 851–867; *Caiman crocodilus* (seas. in wild, mult. factors) 907–919; *Girardinichthys multiradiatus* (beh., rel. to sex. dimorph.) 919–925; squamate reptiles (standardized criteria for embryon. nutrit. determ.) 925–935; *Sceloporus graciosus* (complex. of “push-up” display, rel. to repro. factors) 944–955; *Hyla chrysoscelis* (year-long ovar. cycles diff. in prolonged breeder vs. explosive breeders) 1014–1022; *Rana sylvatica*, centrarchid fishes (frogs choose fish-free ponds to lay eggs) 1023–1025; *Gadus morhua* (sperm viable over 60 min. in sea water) 1025–1029; *Chrysemys picta bellii* (egg size & shape var. btwn. popns., rel. to mat. & clutch size) 1034–1040; *Cnemidophorus* (*t. tigris*, *t. septentrionalis*, *t. gracilis*) (body size rel. to clutch size & elevation) 1047–1050.

RESPIRATION, *Synodontis* (*nigriventris*, *afrofischeri*) (respir. funct. for upside-down swimming) 130–135; *Ascelichthys rhodorus*, *Oligocottus* (*maculatus*, *snyderi*), *Clinocottus globiceps*, *Anoplarchus purpurascens* (air resp., temperate intertidal fish) 153–158; *Chelydra serpentina* (oxy. avail. during hiber.) 222–226; *Clarias liocephalus* (synchronous air-breathing) 246–249; *Myliobatis californica* (eff. of temp. on O₂ consump. across wide range of temps.) 529–532; *Euseya latisternum* (body structs. involved in aquat. resp.) 802–806; *Bufo marinus* (metab. data rel. to morph. & exercise) 887–896.

SALINITY, *Plecoglossus altivelis* (larv. size rel. to salin. toler.) 184–190; *Paralichthys dentatus* (rel. to burying beh. in metamorphs. & juvs.) 458–465.

SEX, *Sceloporus undulatus* (ratios in wild popn.) 136–152; *Crotalus cerastes* (age–sex class & seas. diffs. in act. & movmnts.) 631–645; *Ichthyomyzon gagei* (geogr. var. in sex ratio) 718–725; sea turtles (cheap method to meas. nest temp. for sex determ. info.) 808–811; *Girardinichthys multiradiatus* (operat. sex ratios during ctshp.) 919–925.

SEXUAL DIMORPHISM, *Draco volans sumatranus* (size & color) 124–130; snakes (8 fams., 374 spp.) (in size, rel. to repro.) 326–346; *Aprasia* (8 spp.) (body size, dentit.) 390–398; *Hyla cinerea* (in color) 422–432; *Mycteroperca tigris* (size dimorph. in spawning aggreg.) 511–516; *Anolis sagrei* (null growth-based models used to anal. sex. size dimorph.) 598–613; *Anolis limifrons* (sex. size dimorph. due to small males hiding) 613–622; *Algansea* (*m. monticola*, *m. archidion* n. subsp., *avia*, *aphanea*, *barbata*) (in fin length) 662–676; *Acrochordus arafurae* (in size, matur., growth, greater diffs. than in other snakes) 726–731; *Cnemidophorus murinus* (unusual, in size & color) 760–766; *Anolis opalinus* (in size) 767–780; *Hyla squirella* (in

- color ptnn. & intens.) 797–802; Australian snakes (4 fams., 103 spp.) (interspp. diffs. mostly rel. to body size diffs.) 851–867; *Bufo marinus* (female hearts larger) 887–896; *Caiman crocodilus* (males much bigger) 907–919; *Girardinichthys multiradiatus* (male ornament., rel. to factors of sex. select.) 919–925; *Sceloporus graciosus* (in "push-up" beh. display) 944–955.
- SIZE.** *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Lepidochelys* (*kemp*i, *olivacea*), *Natator depressa* (reprod. diffs. btwn. spp. & popns., rel. to body size) 66–81; *Cyprinodon radiosus* (of eggs unrel. to size of mother or fry) 100–107; *Sceloporus undulatus* (in wild popn.) 136–152; *Plecoglossus altivelis* (of eggs rel. to salin., temp., seas., mat. size) 184–190; snakes (8 fams., 374 spp.) (select. factors in sex. size dimorph.) 326–346; *Scaphiopus couchii* (at metamorph. rel. to water loss) 372–381; *Aprasia* (8 spp.) (sex. dimorph., body size rel. to prey size) 390–398; *Rana* (*lessoniae*, *esculenta*) (mat. & pat. contrib. to hatchl. dev. & size) 406–412; *Paralichthys dentatus* (rel. to burying beh. in metamorphs. & juvs.) 458–465; *Chrysemys picta* (body size rel. to gait & speed on land) 466–471; *Petromyzon marinus*, *Ichthyomyzon* (*castaneus*, *bdellium*), *Lampetra spadicea* (parasitism on small hosts) 499–504; *Gambusia holbrooki*, *Heterandria formosa* (body size of *H. formosa* aff. by *G. holbrooki* pred.) 516–520; *Labroides* (*phthirophagus*, *dimidiatus*) (body size rel. to shift btwn. juv. & adult coloration) 520–524; *Thamnophis* (*radix*, *sirtalis*, *bulleri*, *marcianus*, *melanogaster*) (min. temper. toler. rel. to body size and latitude of sp. range) 537–540; *Thorius* (*aureus* n. sp., *arboresus* n. sp., *boreas* n. sp., *smithi* n. sp., *insperatus* n. sp., *macdougalli*) (among smallest tetrapods) 573–590; *Anolis sagrei* (null growth-based models used to anal. sex. size dimorph.) 598–613; *Anolis limifrons* (sex. size dimorph. due to small males hiding) 613–622; *Gasterosteus* (*aculeatus*, *wheatlandi*) (body size rel. to nest site compet.) 698–704; *Dicamptodon tenebrosus* (size-select. of prey by larv., ontongen. change) 705–718; *Ichthyomyzon gagei* (geogr. var. in fecund. & egg size, rel. to pH & body size) 718–725; *Eumeces okadae* (divers. in island popns. rel. to pred.) 732–747; *Cnemidophorus murinus* (unusual sex. size dimorph.) 760–766; *Anolis opalinus* (fem. size rel. to egg size not #, sex. dimorph.) 767–780; *Tupinambis teguixin* (free-living body temps. in lg. lizard) 806–808; Australian snakes (4 fams., 103 spp.) (eff. of body size on interspp. ecol. diffs.) 851–867; *Bufo marinus* (body size rel. to physiol. & morph. factors & exercise) 887–896; *Caiman crocodilus* (body size, at sex. matur., rel. to clutch size & freq., egg size) 907–919; squamate reptiles (rel. size of egg, neonate & mother not useful in embryon. nutrit. determ.) 925–935; *Chrysemys picta bellii* (egg size & shape var. btwn. popns., rel. to mat. & clutch size) 1034–1040.
- SURVIVAL.** *Sceloporus undulatus* (survivorshp in wild popn.) 136–152; *Triturus* (*helveticus*, *alpestris*, *cristatus*) (egg-wrapping increases egg survival) 535–537; *Neoceratodus forsteri* (low in eggs hatched in lab) 935–943; *Sceloporus jarrovi* (yearly fluct. in surv. at highest elev.) 1040–1042.
- SYMBIOSIS.** *Thalassoma duperry*, *Chelonia mydas* (btwn. cleaner wrasse & turtles) 684–690.
- SYSTEMATICS.** *Coryphaenoides* (3 of the 4 subgen.) (phylogen. anal., genet. data) 42–50; *Ptychocheilus* (*lucius*, *grandis*, *umpqua*, *oregonensis*), *Mylopharodon conocephalus*, *Lavinia exilicauda* (phylogen. anal., possible n. sp. of *Ptychocheilus*, NOR kar. & genome size data) 60–65; *Notropis* (*suttkusi* n. sp., *rubellus*, *atherinoides*, *oligaspis*, *percobromus*) (n. sp., phylogen. anal. of close rels., possible hybrid.) 82–90; *Naso* (*Axinurus*) (thynnoides, minor, *caeruleacauda* n. sp.) (clad. anal., diagn. of subgenus, key to spp., descr. all spp.) 116–124; *Lycodon* (*alcalai* n. sp., *bibonius* n. sp., *chrysoprateros* n. sp., *solivagus* n. sp., *aulicus capucinus*, *subcinctus sealei*, *tessellatus*, *muelleri*, *dumerili*) (n. spp., key to all spp., zoogeogr. & hab. notes) 159–174; *Cyclothone kobayashii* n. sp. (key to the 8 S. Ocean spp. of genus) 191–204; *Polyipnus* (*latirastrus* n. sp., *paxtoni*, *elongatus*) (phylogen. anal., *P. spinosus* sp. group) 210–215; *Autanichthys giacopinii* = *Bryconops giacopinii* (synon., neotype design., phylogen. discuss. of genus, compar. to *B. melanurus*) 238–242; haplochromine cichlids (32 gen., 40 spp.) (clad. & phenetic anal., mtDNA data, evid. of polyphyly, rapid evol.) 274–288; squamate reptiles (56 spp.) (phylogen. anal., rDNA loc. data) 302–313; *Champsodon* (10 spp., *sagittus* n. sp., *pantolepis* n. sp., *machaeeratus* n. sp.) (redescr. & synon. spp., key to spp.) 347–371; *Notoraja ochroderma* n. sp. (phylogen. notes on rel. btwn. genera) 413–421; *Raja* (*Dipturus*) *floridana* = *R. (D.) teevani* (synon. spp., truss anal., merist. & sens. syst. data) 433–445; *Stenodus leucichthys nelma* (eggs, larvae & juvs. disting. from other sympatric whitefishes) 472–484; *Thorius* (*aureus* n. sp., *arboresus* n. sp., *boreas* n. sp., *smithi* n. sp., *insperatus* n. sp., *macdougalli*) (n. spp., endemic, elevation-specific, sympatry) 573–590; *Hybognathus* (all 7 spp.) (clad. anal., osteol. & alloz. charcs.) 622–630; *Rhyacosciredon* = *Ambystoma* (*altamirani*, *rivularis*, *leorae*), *Ambystoma* (*dumerili*, *mexicanum*, *tigrinum*, *ordinarium*) (synon. genus, phylogen. anal., osteol. & alloz. data) 656–662; *Algansea* (*m. monticola*, *m. archidion* n. subsp., *avia*, *aphanea*, *barbata*) (n. subsp., histor. biogeogr.) 662–676; *Afrocaecilia* = *Boulengerula* (*changamwensis*, *tailanensis*, *uluguruensis*), *Boulengerula* (*boulengeri*, *fischeri* n. sp.) (synon. gen., n. sp., phylogen. anal., extend ranges, key to spp.) 750–760; *Eleutherodactylus* (*urichi*, *euphromides* n. sp., *shrevei* n. sp.) (elevate subsp., redscripts, morphol., calls & allozyme data, key to all Carib. spp.) 780–796; *Richardsonius* (*balteatus*, *egregius*) (clad. affin. determ. with G-banding of NOR's) 815–818; *Notropis* (*albizonatus* n. sp., *proce* sp. group) (phylogen. anal. of sp. group) 868–886; *Cyprinella alvarezdelvillari* n. sp. (n. sp., notes on & key to *C. lepida* clade) 897–906; *Creagrutus hysginus* n. sp. (n. sp.) 975–979; *Neobythites* (*unicolor* n. sp., *elongatus* n. sp.) (n. spp., compared

to congeners) 992-995; *Emoia* (cyanura, impar) (valid. of spp., allozyme data) 1042-1047.

TEMPERATURE, *Neoseps reynoldsi* (body temp., diel & seas. pttns.) 91-99; *Dorosma cepedianum*, *Pomoxis* spp., *Etheostoma* spp., *Percina* spp., *Lepomis* spp., *Gambusia affinis*, *Cyprinella* spp., *Notropis* spp. (rel. to distrib. o. larv. & juv. fishes in floodplain river) 174-183; *Plecoglossus altivelis* (egg size rel. to temp. toler.) 184-190; *Gambusia affinis holbrooki* (eff. of temp. & photoper. on spermatogen.) 216-221; *Chelydra serpentina* (body temp. during hiber., charcs. of hibernacula) 222-226; *Varanus rosenbergi* (body temp. during diff. beh., rel. to popn. energetics) 289-295; *Hyla cinerea* (color change rel. to temp.) 422-432; *Paralichthys dentatus* (rel. to burying beh. in metamorphs. & juvs.) 458-465; *Myliobatis californica* (eff. of temp. on O₂ consump. across wide range of temps.) 529-532; *Thamnophis* (*radix*, *sirtalis*, *butteri*, *marcianus*, *melanogaster*) (min. temper. toler. rel. to latitude of sp. range) 537-540; *Elseya latisternum* (aquat. resp. at diff. temps.) 802-806; *Tupinambis teguixin* (free-living body temps. rel. to activ. in lg. lizard) 806-808; sea turtles (cheap method to meas. daily av. nest temp.) 808-811; *Etheostoma lynceum* (eff. of diff. drying temps. on egg weight meas.) 821-823; *Angolosaurus skoogi* (water balance & met.

rate at diff. temps.) 962-974; *Callisaurus draconoides*, *Cophosaurus texanus* (aff. antipred. beh.) 980-992.

TRUSS ANALYSIS, *Raja* (*Dipturus*) *floridana* = *R. (D.) teevani* (evid. to synon. spp.) 433-445.

VARIATION, *Gasterosteus aculeatus* (btwn. popns., degree of pelvic reduction) 314-325; *Gasterosteus wheatlandi* (geogr. var. in lateral plate counts) 508-511; *Anolis limifrons* (seas. var. in sex. size dimorph.) 613-622; *Ichthyomyzon gagei* (geogr. var. in fecund., egg size & sex ratio, rel. to pH & body size) 718-725.

VENOM, *Naja naja*, *Vipera ammodytes*, *Coluber constrictor priapus*, *Boa constrictor imperator* (evol. of front-fanged venom systs.) 1-9; *Natrix tessellata*, *Crotalus atrox* (inhib. of *Crotalus* venom hemorrhage effs. by embryo. and ad. *Natrix*) 1050-1053.

VISION, *Bathycetopsis* n. gen. *oliveirai* n. sp. (evol. of eyeless depigmented catfishes) 381-390; *Hyla cinerea* (rel. to color change) 422-432.

WATER BALANCE, *Scaphiopus couchii* (rel. to size of metamorphs.) 372-381; *Angolosaurus skoogi* (water intake, evap. water loss, met. rate, rel. to temp.) 962-974.

